

WHAT IS CLAIMED IS:

1. A fluid servicing apparatus for exchanging fluids with a power steering fluid reservoir having an upper fluid level comprising:

a used fluid receptacle for collecting used fluid from said power steering fluid reservoir;

5 a fresh fluid source for supplying fresh fluid to said power steering reservoir;

an elongated drain conduit including an inline drain pump and a first extension of sufficient length to be inserted into said power steering fluid reservoir with a free end below said upper fluid level, said drain conduit having a second end for coupling to said used fluid receptacle;

10 an elongated supply conduit including an inline supply pump and a second extension of sufficient length to be inserted into said power steering fluid reservoir with a free end at a level below said upper fluid level, said supply conduit having a second end for coupling to said fresh fluid source;

a cabinet housing said used fluid receptacle, said fresh fluid source, and said pumps;

15 a control board on said housing and operatively coupled to said pumps; and

a remote pump actuator coupled to said control board and including at least one switch operable to actuate selectively said pumps to drain and fill said power steering fluid reservoir.

2. The fluid servicing apparatus as set forth in claim 1 wherein:
said first and second extensions are of equal length.

3. The fluid servicing apparatus as set forth in claim 1 wherein:
said first extension includes a drain valve selectively operable to open and close said
drain conduit.

4. The fluid servicing apparatus as set forth in claim 1 wherein:
said second extension includes a supply valve selectively operable to open and close said
supply conduit.

5. The fluid servicing apparatus as forth in claim 1 wherein:
said first extension includes a drain valve selectively operable to open and close said
drain conduit; and
said second extension includes a supply valve selectively operable to open and close said
5 supply conduit.

6. The fluid servicing apparatus as set forth in claim 1 wherein:
said remote actuator is connected to said control board via a wiring harness.

7. The fluid servicing apparatus as set forth in claim 1 wherein:
said remote actuator is operable to communicate with said control board to selectively
operate said pumps using wireless communication.

8. The fluid servicing apparatus as set forth in claim 1 wherein:
said control board includes a mode switch selectively operable between at least a first
mode and a power steering fluid exchange mode.

9. The fluid servicing apparatus as set forth in claim 5 wherein:
said valves are coupled to said control board and are selectively openable via said remote actuator.

10. The fluid servicing apparatus as set forth in claim 1 further including:
a drain filter in fluid communication with said drain conduit upstream of said drain pump.

11. The fluid servicing apparatus as set forth in claim 1 further including:
a supply filter in fluid communication with said supply conduit upstream of said supply pump.

12. The fluid servicing apparatus as set forth in claim 5 wherein:
said valves are ball valves.

13. The fluid servicing apparatus as set forth in claim 1 wherein:
said remote actuating device includes a first switch selectively operable to actuate said drain pump and a second switch selectively operable to actuate said supply pump.

14. The fluid servicing apparatus as set forth in claim 1 wherein:
said conduits and extensions are transparent.

15. The fluid servicing apparatus as set forth in claim 1 wherein:
said used fluid receptacle includes a first opening couplable to said second end of said drain conduit and a second opening couplable to an alternative drain source.

16. The fluid servicing apparatus as set forth in claim 1 wherein:

said control board includes a docking region including a removable pendant clamp having a holder operable to removably restrain a portion of both conduits.

17. The fluid servicing apparatus as set forth in claim 16 wherein:

said removable pendant clamp is magnetically coupled to said docking region.

18. A fluid servicing apparatus for exchanging fluids with a power steering fluid reservoir having an upper fluid level comprising:

a used fluid receptacle;

a fresh fluid source;

5 an elongated drain conduit means having a first end for inserting into said power steering fluid reservoir and a second end for coupling to said used fluid receptacle, said drain conduit means including a second pumping means for transporting fluid through said drain conduit means from said power steering fluid reservoir to said used fluid receptacle;

10 an elongated supply conduit means having a first end for inserting into said power steering fluid reservoir and a second end for coupling to said fresh fluid source, said supply conduit means including a first pumping means for transporting fluid through said supply conduit means from said fresh fluid source to said power steering fluid reservoir; and

a remote actuating means coupled to said pumps and selectively operable to actuate either of said pumps to drain and fill said power steering fluid reservoir.

19. The fluid servicing apparatus as set forth in claim 18 further including:
flow control means in said drain conduit means for opening and closing said drain
conduit means.

20. The fluid servicing apparatus as set forth in claim 18 further including:
flow control means in said supply conduit means for opening and closing said supply
conduit means.

21. The fluid servicing apparatus as set forth in claim 18 further including:
a first flow control means in said drain conduit means for opening and closing said drain
conduit means; and
a second flow control means in said supply conduit means for opening and closing said
5 supply conduit means.

22. A fluid servicing apparatus for exchanging fluid with automatic transmission fluid
and power steering fluid reservoirs, said apparatus including a first fluid circuit with a first pump
for exchanging fluids with said automatic transmission fluid reservoir and comprising:

a portable cabinet carrying a used fluid receptacle and a fresh fluid source;

5 an elongated drain fluid circuit having a drain pump and a first extension for insertion
into said power steering fluid reservoir, said drain fluid having a free end for coupling to said
used fluid receptacle;

an elongated supply fluid circuit having a supply pump and a second extension for
insertion into said power steering fluid reservoir, said supply conduit having a free end for
10 coupling to said fresh fluid source;

a control board on said housing including a switch operatively coupled to said pumps and selectively operable between at least a first mode for actuating said first pump and a second mode for actuating said drain and supply pumps; and

15 a remote pump actuator coupled to said control board and including at least one switch selectively operable to actuate either of said pumps to drain and fill said power steering fluid reservoir, upon selection of said second mode.

23. The fluid servicing apparatus as set forth in claim 22 wherein:

said used fluid receptacle is common to both said first fluid circuit and said drain circuit and may receive fluid from either said first fluid circuit or said drain circuit.

24. A method for exchanging fluid with an automobile power steering fluid reservoir having an upper fluid level using a fluid servicing apparatus including a cabinet housing a used fluid receptacle coupled to a drain conduit including drain pump and a first extension terminating in a free end and a fresh fluid source coupled to a supply conduit including a supply pump and a
5 second extension terminating in a free end comprising:

providing a remote pump actuator device coupled to said drain and supply pumps and including at least one switch selectively operable to actuate either of said pumps;

placing said free ends of said first and second extensions in said power steering fluid reservoir below said upper fluid level;

10 alternately actuating said drain and supply pump with said switch to repeatedly drain and fill said power steering fluid reservoir while holding said remote actuating device;

rotating a steering wheel of a vehicle being serviced to a full extent in a first direction and then to a full extent in the opposite direction while holding said remote actuating device;

observing a fluid color in said power steering reservoir; and
15 repeating said alternately actuating and rotating steps until a fluid color observed in said
observing step is sufficient to indicate a complete power steering fluid exchange.

25. The method as set forth in claim 24 further comprising:

providing a drain valve in said drain conduit;

providing a supply valve in said supply conduit;

opening said drain and supply valves prior to actuating said pumps; and

5 closing said drain and supply valves after exchanging said power steering fluid.

26. A method for exchanging fluid with a power steering fluid reservoir of a vehicle
comprising:

providing a fluid servicing apparatus having a control switch selectively operable
between a first mode for performing a fluid exchange with a first fluid reservoir of said vehicle
5 using a first fluid circuit and a second mode for performing a fluid exchange with said power
steering fluid reservoir of said vehicle, said apparatus further including a used fluid receptacle
common constructed to received used fluid from either of said reservoirs and a fresh power
steering fluid source;

supplying a supply conduit including a supply pump and coupling said fresh power
10 steering fluid source to said power steering reservoir for fluid communication therebetween;

supplying a drain conduit including a drain pump and coupling said used fluid receptacle
to said power steering fluid reservoir for fluid communication therebetween;

coupling said supply and drain pumps to said switch;

supplying power to said supply and drain pumps;

- 15 selecting said second mode to enable said switch to selectively operate said pumps;
 selectively operating said switch to actuate said drain pump to conduct fluid from said
power steering fluid to said used fluid receptacle; and
 selectively operating said switch to actuate said supply pump to conduct fluid from said
fresh power steering fluid source to said power steering fluid reservoir.